CLAIMS

1. Method for machining the surface of a bore, with the following method steps:
the bore is machined with an arbor honing tool with at least one stroke and one return stroke, and in the case of at least one stroke and return stroke, the ratio of the stroke speed to the rotational speed of the tool is increased compared with the normal ratio during arbor honing.

2. Method according to claim 1, wherein during the first stroke the ratio of the stroke speed to the rotational speed of the tool is increased compared with the normal ratio for arbor honing.

3. Method according to claim 1, wherein the first stroke is performed with a standard arbor honing ratio of the stroke speed to the rotational speed of the tool, whereas during the first return stroke the ratio is increased.

4. Method according to claim 1, wherein after retracting the tool from the bore, the ratio of the stroke speed to the rotational speed of the tool is increased and the bore is remachined with at least one stroke and one return stroke.

5. Method according to claim 1, wherein, prior to the remachining return stroke, the tool is reset to a smaller size.

6. Method according to claim 1, wherein during remachining several strokes are performed.

7. Method according to claim 6, wherein, before or during remachining with the higher speed, there is a honing tool infeed.

8. Method according to claim 1, wherein, following onto the remachining, the peaks of the surface structure are smoothed.

9. Method according to claim 8, wherein the smoothing of the peaks of the surface structure takes place with the aid of the same tool as used in the preceding machining.

10. Method according to claim 8, wherein the smoothing of the peaks of the surface structure takes place by using a different tool.

11. Method according to claim 1, wherein arbor honing comprises a maximum of three strokes and three return strokes.